

IN THE CLAIMS:

1. (Currently Amended) A liquid crystal display panel comprising:

an array substrate;

a counter substrate opposing the array substrate;

a liquid crystal layer sandwiched between a surface of the array substrate and a surface of the counter substrate;

a plurality of image signal lines ~~provided~~ located over a the surface of the array substrate that is in contact with the liquid crystal layer, the image signal lines being aligned in a same direction;

a plurality of scanning signal lines ~~provided~~ located over the surface of the array substrate over which the image signal lines are ~~provided~~, located, the scanning signal lines being ~~disposed~~ located perpendicular to the image signal lines;

a line-shaped pixel electrode ~~provided~~ located in each of pixel regions of the array substrate that is surrounded by the image signal lines and the scanning signal lines, the pixel electrode ~~disposed~~ located parallel to the image signal lines or to the scanning signal lines;

a ~~counter~~common electrode ~~provided~~located in each of the pixel regions and ~~disposed~~located parallel to the pixel electrode;

a switching element for electrically connecting the pixel electrode and one of the image signal lines in response to a signal received from the scanning signal lines;

wherein, of the pixel electrode and the common electrode, the electrode that is ~~disposed~~located adjacent to and parallel to one of the image signal lines or one of the scanning signal lines ~~is made of~~comprises an opaque conductor, and at least one of the other electrodes comprises a transparent conductor.

2. (Currently Amended) The liquid crystal display panel according to claim 1, further comprising an additional electrode ~~made of~~comprising a transparent conductor, the additional electrode being ~~disposed~~located over the array substrate ~~so as~~ to be parallel to, partially overlapping with, and electrically connected to the electrode that is ~~disposed~~located adjacent to one of the image signal lines or one of the scanning signal lines.

3. (Currently Amended) The liquid crystal display panel according to claim 2, wherein an electrode unit ~~composed of~~ comprising a pair of the overlapping electrodes has a surface inclined toward an adjacent electrode.

4. (Currently Amended) The liquid crystal display panel according to claim 2, wherein a gap between an edge of ~~the one~~ of the pair of the overlapping electrodes that is made of a transparent conductor, and one of the signal lines that is perpendicular thereto is smaller than a gap between an edge of the other one of the electrodes that is opaque and the one of the signal lines.

5. (Currently Amended) The liquid crystal display panel according to claim 1, wherein the electrode that is ~~disposed~~ located adjacent to and parallel to one of the image signal lines or one of the scanning signal lines is the line-shaped common electrode.

6. (Currently Amended) The liquid crystal display panel according to claim 1, wherein an electrode adjacent to the electrode that is ~~disposed~~ located adjacent to and parallel to one of the image signal lines and one of the scanning signal lines ~~is made of~~ comprises a transparent conductor.

7. (Currently Amended) The liquid crystal display panel according to claim 1, further comprising an additional line-shaped electrode ~~disposed~~ located on a surface of the counter substrate ~~so as to oppose the one of the image signal lines or the one of the scanning signal lines with the liquid crystal layer interposed therebetween and to be parallel to the one of the image signal lines or the one of the scanning signal lines,~~ the additional line-shaped electrode for having a potential equal to that of an electrode adjacent to ~~the one of the image signal lines or the one of the scanning signal lines.~~

8. (Currently Amended) The liquid crystal display panel according to claim 7, wherein the additional line-shaped electrode ~~is made of~~ comprises a transparent conductor.

Serial No. 09/980,633

9. (Original) The liquid crystal display panel according to claim 7, wherein the additional line-shaped electrode covers a region opposing the adjacent electrode.

10. (Currently Amended) The liquid crystal display panel according to claim 1, further comprising a light shielding member covering a region between the electrode that is disposed adjacent to and parallel to one of the image signal lines or one of the scanning signal lines and ~~the one of the image signal lines or the one of the scanning signal lines.~~

11. (Currently Amended) The liquid crystal display panel according to claim 10, wherein the light shielding member ~~is~~ comprises a black matrix ~~disposed~~ located on the counter substrate.

12. (Currently Amended) The liquid crystal display panel according to claim ~~11~~, 10, wherein the light shielding member is ~~disposed~~ located on the array substrate.

Serial No. 09/980,633

13. (Currently Amended) The liquid crystal display panel according to claim 12, wherein the light shielding member ~~is made of~~ comprises a conductive material.

14. (Original) The liquid crystal display panel according to claim 13, wherein the light shielding member is electrically insulated from surrounding members.

15. (Currently Amended) The liquid crystal display panel according to claim 13, wherein a gap is ~~provided~~ located between the light shielding member and one of the image signal lines or one of the scanning signal lines that is perpendicular to the light shielding member.

16. (Original) The liquid crystal display panel according to claim 15, wherein the gap is larger than a gap between the adjacent electrode and one of the image signal lines or one of the scanning signal lines that is perpendicular to the adjacent electrode.

Serial No. 09/980,633

17. (Currently Amended) The liquid crystal display panel according to claim 12, wherein the light shielding member is ~~disposed~~ located in a layer lower than that of the electrode that is ~~disposed~~ located adjacent to and parallel to one of the image signal lines or one of the scanning signal lines on the array substrate.

18. (Currently Amended) The liquid crystal display panel according to claim 10, wherein the light shielding member covers a region between a pair of the electrodes that are adjacent to each other with one of the image signal lines or one of the scanning signal lines ~~disposed~~ located therebetween.

19. (Currently Amended) The liquid crystal display panel according to claim 1, wherein the electrode that is ~~disposed~~ located adjacent to and parallel to one of the image signal lines or one of the scanning signal lines is the common electrode.

20. (Currently Amended) The liquid crystal display panel according to claim 1, wherein the common electrodes are ~~disposed~~ located over each of the array substrate and the counter substrate.

21. (Currently Amended) The liquid crystal display panel according to claim 1, wherein ~~in~~ the centerline of the surface of ~~the~~ a first electrode that is ~~disposed~~ located adjacent to and parallel to one of the image signal lines or one of the scanning signal lines, is for forming therein an electric flux line of an electric field formed between the first electrode and ~~an~~ a second electrode adjacent thereto, such flux line ~~is~~ inclined toward the adjacent second electrode with respect to the direction of the normal of the array substrate.

22. (Currently Amended) The liquid crystal display panel according to claim 21, wherein the upper surface of the first electrode that is ~~disposed~~ located adjacent to and parallel to one of the image signal lines or one of the scanning signal lines is inclined toward the adjacent second electrode.



23. (Currently Amended) A liquid crystal display panel comprising:

an array substrate;

a counter substrate opposing the array substrate;

a liquid crystal layer sandwiched between a surface of the array substrate and a surface of the counter substrate;

a plurality of image signal lines ~~provided~~ located over ~~a~~ the surface of the array substrate that is in contact with the liquid crystal layer, the image signal lines being aligned in a same direction;

a plurality of scanning signal lines ~~provided~~ located over the surface of the array substrate over which the image signal lines are ~~provided,~~ located, the scanning signal lines being ~~disposed-located~~ perpendicular to the image signal lines;

a line-shaped pixel electrode ~~provided~~ located in each of pixel regions of the array substrate that is surrounded by the image signal lines and the scanning signal lines, the pixel electrode ~~disposed~~ located parallel to the image signal lines or to the scanning signal lines;

~~a-counter~~ common electrode ~~provided~~ located in each of the pixel regions and disposed parallel to the pixel electrode;

a switching element for electrically connecting the pixel electrode and one of the image signal lines in response to a signal received from the scanning signal lines;

wherein ~~in~~ the centerline of the surface of ~~the~~ a first electrode that is ~~disposed~~ located adjacent to and parallel to one of the image signal lines or one of the scanning signal lines, for forming an electric flux line of an electric field formed between the first electrode and ~~an~~ a second electrode adjacent thereto ~~is~~ thereto, such flux line inclined toward the adjacent second electrode with respect to the direction of the normal of the array substrate.

24. (Currently Amended) The liquid crystal display panel according to claim 23, wherein the upper surface of the first electrode that is ~~disposed~~ located adjacent to and parallel to one of the image signal lines or one of the scanning signal lines is inclined toward the adjacent second electrode.

25. (Currently Amended) The liquid crystal display panel according to claim 24, wherein the first electrode that is ~~disposed~~located adjacent to and parallel to one of the image signal lines or one of the scanning signal lines comprises a pair of electrode members that are ~~disposed~~located parallel to each other and electrically connected to each other, portions of the electrode members overlapping with each other, and the inclined upper surface includes an upper surface of the electrode member that is ~~disposed~~located in an upper layer.

26. (Currently Amended) The liquid crystal display panel according to claim 24, wherein the pair of electrode members are ~~disposed~~located so as to sandwich an insulating film, and a thickness of the insulating film decreases from a side of the one of the image signal line or the one of the scanning signal lines toward a side of the adjacent second electrode.

Serial No. 09/980,633

27. (Currently Amended) The liquid crystal display panel according to claim 23, wherein the first electrode that is ~~disposed~~ located adjacent to and parallel to one of the image signal lines or one of the scanning signal lines has a step-shaped upper surface such that a thickness thereof decreases in a stepwise manner toward the adjacent second electrode.

28. (Currently Amended) The liquid crystal display panel according to claim 1, wherein all the common electrodes are ~~disposed~~ located over the array substrate.

29. (Currently Amended) A liquid crystal display panel comprising:

an array substrate;

a counter substrate opposing the array substrate;

a liquid crystal layer sandwiched between a surface of the array substrate and a surface of the counter substrate;

a plurality of image signal lines ~~provided~~ located over a the surface of the array substrate that is in contact with the liquid crystal layer, the image signal lines being aligned in a same direction;

a plurality of scanning signal lines ~~provided~~ located over the surface of the array substrate over which the image signal lines are ~~provided~~ located, the scanning signal lines being ~~disposed~~ located perpendicular to the image signal lines;

a line-shaped pixel electrode ~~provided~~ located in each of pixel regions of the array substrate that is surrounded by the image signal lines and the scanning signal lines, the pixel electrode ~~disposed~~ located parallel to the image signal lines or to the scanning signal lines;

a ~~counter~~ common electrode ~~provided~~ located in each of the pixel regions and ~~disposed~~ located parallel to the pixel electrode;

a switching element for electrically connecting the pixel electrode and one of the image signal lines in response to a signal received from the scanning signal lines; and

Serial No. 09/980,633

a light shielding member covering a region between the electrode that is ~~disposed~~located adjacent to and parallel to one of the image signal lines or one of the scanning signal lines and ~~the one of the image signal lines or the one of the scanning signal lines~~.

30. (Currently Amended) The liquid crystal display panel according to claim 29, wherein the light shielding member ~~is~~ comprises a black matrix ~~disposed~~located on the counter substrate.

31. (Currently Amended) The liquid crystal display panel according to claim 29, wherein the light shielding member is ~~disposed~~located on the array substrate.

32. (Currently Amended) The liquid crystal display panel according to claim 31, wherein the light shielding member ~~is made of~~ comprises a conductive material.

33. (Original) The liquid crystal display panel according to claim 32, wherein the light shielding member is electrically insulated from surrounding members.

34. (Currently Amended) The liquid crystal display panel according to claim 32, wherein a gap is ~~provided~~located between the light shielding member and one of the image signal lines or one of the scanning signal lines that is perpendicular to the light shielding member.

35. (Original) The liquid crystal display panel according to claim 32, wherein the gap is larger than a gap between the adjacent electrode and one of the image signal lines or one of the scanning signal lines that is perpendicular to the adjacent electrode.

36. (Currently Amended) The liquid crystal display panel according to claim 29, wherein the light shielding member is ~~disposed~~located in a layer lower than that of the electrode that is ~~disposed~~located adjacent to and parallel to one of the

Serial No. 09/980,633

image signal lines or one of the scanning signal lines on the array substrate.

37. (Currently Amended) The liquid crystal display panel according to claim 30, wherein the light shielding member covers a region between a pair of the electrodes that are adjacent to each other with one of the image signal lines or one of the scanning signal lines ~~disposed~~located therebetween.

38. (Currently Amended) A liquid crystal display panel comprising:

an array substrate;

a counter substrate opposing the array substrate;

a liquid crystal layer sandwiched between a surface of the array substrate and a surface of the counter substrate;

a plurality of image signal lines ~~provided~~located over a the surface of the array substrate that is in contact with the liquid crystal layer, the image signal lines being aligned in a same direction;



a plurality of scanning signal lines ~~provided~~ located over the surface of the array substrate over which the image signal lines are ~~provided,~~ located, the scanning signal lines being ~~disposed~~ located perpendicular to the image signal lines;

a line-shaped pixel electrode ~~provided~~ located in each of pixel regions of the array substrate that is surrounded by the image signal lines and the scanning signal lines, the pixel electrode ~~disposed~~ located parallel to the image signal lines or to the scanning signal lines;

a ~~counter~~ common electrode ~~provided~~ located in each of the pixel regions and ~~disposed~~ located parallel to the pixel electrode;

a switching element for electrically connecting the pixel electrode and one of the image signal lines in response to a signal received from the scanning signal lines; and

a black matrix ~~disposed~~ located in a region of the counter substrate that opposes the image signal lines or the scanning signal lines, the black matrix covering an area extending from the edge of the electrode adjacent to one of the scanning signal lines or one of the image signal lines for a distance  $d \cdot \tan \theta_t$ ,

Serial No. 09/980,633

where  $d$  is a thickness of the liquid crystal layer and  $\theta_t$  is the angle between the direction of the normal of the surface of the array substrate and the propagating direction of a light that has transmitted through the liquid crystal layer when the light undergoes total reflection at a boundary surface between the device and an outside.

39. (Original) The liquid crystal display panel according to claim 38, wherein the black matrix covers a region of the liquid crystal layer in which liquid crystal molecules contained therein are driven by an electric field formed between one of the image signal lines or one of the scanning signal lines and the electrode disposed adjacent to and parallel to the one of the image signal lines or the one of the scanning signal lines.